



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,080	02/18/2005	Jouni Hyvarinen	122835	5061
25944 7590 02/04/2010 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850				
EXAMINER SZEWCZYK, CYNTHIA				
ART UNIT 1791		PAPER NUMBER		
NOTIFICATION DATE 02/04/2010		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

OfficeAction25944@oliff.com
jarnstrong@oliff.com

Office Action Summary

Application No.

10/525,080

Applicant(s)

HYVARINEN ET AL.

Examiner

CYNTHIA SZEWCZYK

Art Unit

1791

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/200)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 29, 30, 32-35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over FLEMING JR et al. (US 6,553,790 B1) in view of SAITO et al. (US 5,942,019).

FLEMING teaches a method for stretching a preform comprising securing the preform to a drawer using first movable gripping means (14) and a second movable gripping means (16) which are independently controlled (col. 4, lines 9-11). FLEMING teaches that the rod is heated by a movable heating means (18). FLEMING discloses that one of the gripping means may be held still while the other gripping means is moved to provide a tension to the rod (col. 3, lines 14-17). FLEMING discloses that the heating source traverses the rod longitudinally but doesn't limit which direction it traverses (col. 4, lines 15-17). It would have been obvious to one of ordinary skill in the art that the heat source could traverse the rod in only two directions, therefore it could have been expected that the heat source could have moved towards the moving gripping means. FLEMING is silent to placing the gripping means on the side of the preform.

SAITO teaches a method and apparatus for elongating a glass preform. SAITO teaches that the apparatus includes a first and second gripping means (7 and 8) that are independently movable (9a and 9b). Figure 1 shows that the gripping means (7 and

8) are positioned on the side of the preform. It would have been obvious to one of ordinary skill in the art that that the gripping means SAITO could have been used as the gripping means of FLEMING because both SAITO and FLEMING teach using chucks as the gripping means and the chucks of SAITO would provide tensile and compressive movement as require by FLEMING (col. 3, lines 15-17).

Regarding claim 30, FLEMING teaches that the end product is an optical fiber and the optical fiber is drawn from a preform (col. 1, lines 12-13).

Regarding claim 32, figure 1 of FLEMING shows that the gripping means (14 and 16) and heating means (18) are adjustable separately from one another.

Regarding claims 33 and 34, FLEMING discloses that one of the gripping means may be held still while the other gripping means is moved to provide a tension or compression to the rod (col. 3, lines 14-17). This indicates that the stretching of the preform may occur downwards or upwards. Additionally, figure 1 shows that the gripping means (14 and 16) are capable of moving in either direction.

Regarding claim 35, FLEMING discloses that the rod may be rotated while stretching (col. 3, lines 14-15).

Regarding claim 37, see the discussion of claim 32.

3. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over FLEMING JR et al. (US 6,553,790 B1) in view of SAITO et al. (US 5,942,019) as applied to claims 29, 30, 32-35, and 37 above, and further in view of DRUMMOND (US 4,033,741).

FLEMING and modified by SAITO teaches a method and apparatus for elongating a glass preform into an optical fiber. Modified FLEMING is silent to any process steps occurring after the elongation has finished.

DRUMMOND teaches a method and apparatus for forming a containerized glass strand package. DRUMMOND discloses that it is known in the art to wind finished glass fiber around a mandrel to produce a package of glass fiber strand (col. 1, lines 9-10). The wound glass fiber is easier for handling and packaging. It would have been obvious to add a coiling means into the gripping means as in instant claim 31 so that the finished fiber can be easily wound into coils which could then be packaged and shipped to the end consumer (DRUMMOND col. 1, lines 47-49). Therefore, the claimed invention would have been obvious.

4. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over FLEMING JR et al. (US 6,553,790 B1) in view of SAITO et al. (US 5,942,019) as applied to claims 29, 30, 32-35, and 37 above, and further in view of YAMAMURA et al. (US 6,220,057 B1).

FLEMING and modified by SAITO teaches a method and apparatus for elongating a glass preform into an optical fiber. Modified FLEMING is silent to the use of multiple heaters.

YAMAMURA et al. teaches an apparatus and method for drawing a glass ingot. Figure 1 shows that the glass is held by an upper support (9) and a lower support (8). Figure 1 also shows that the heating area contains three heating means (1a, 1b, 1c).

YAMAMURA et al. discloses that the heating means are individually controlled to obtain a temperature differential (col. 1, lines 60-62). Modified FLEMING teaches that any source capable of heating the rod above the material's softening point may be used as the heating means (col. 3, lines 34-35). YAMAMURA teaches that the multiple heating sources provide better control of the diameter (col. 1, lines 54-66) which is an objective of modified FLEMING (col. 2, lines 15-17).

5. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over FLEMING JR et al. (US 6,553,790 B1) in view of SAITO et al. (US 5,942,019) as applied to claims 29, 30, 32-35, and 37 above, and further in view of YOKOKAWA et al. (US 4,608,071).

FLEMING and modified by SAITO teaches a method and apparatus for elongating a glass preform into an optical fiber. Modified FLEMING is silent to using tubes as the preform.

YOKOKAWA teaches a method and apparatus to elongate preforms of optical fibers. YOKOKAWA teaches that it is known in the art that preform tubes or rods are gripped and then heated and stretched (col. 1, lines 14-40). It would have been obvious to one of ordinary skill in the art to try a tube as the preform of modified FLEMING because YOKOKAWA describes a method for elongating preforms that is similar to the method of modified FLEMING, which would suggest that tubes may be used in the process of modified FLEMING as well.

Response to Arguments

6. Applicant's arguments filed October 22, 2009 have been fully considered but they are not persuasive. Applicant argues on page 2 that neither FLEMING nor SAITO disclose that the gripping means on a side of an end product of the preform is held in a position relative to the body of the drawer irrespective of a direction of stretching. The applicant argues that the end product of FLEMING is moved in relation to the body of the drawer. The examiner disagrees as the end product is considered to be the rod of FLEMING after undergoing the treatment; therefore, so long as one end of the rod is held by the gripping means, the end product is not moved relative to the gripping means. Additionally, FLEMING discloses that the heat source may move downwards or upwards (col. 4 lines 38-48).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CYNTHIA SZEWCZYK whose telephone number is (571)270-5130. The examiner can normally be reached on Monday through Thursday 7:30 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P. Griffin/
Supervisory Patent Examiner, Art
Unit 1791